

**Flood Control Project Maintenance
Levee Inspections**

Fall 2016 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

MA0012	Overall LMA Rating	Total LMA Miles						
Sutter Maintenance Yard Maintenance Area 0012	M	11.06						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.80		0.80	7.23%				
Encroachments					0.05	2.28		
Animal Control	0.02		0.02	0.18%				
Slope Stability	0.01		0.01	0.09%				
Crown Surface / Depressions / Rutting	0.78	0.04	0.94	8.50%				
<i>Supplemental</i>								
2015 USACE Erosion Survey, DRAFT	0.05		0.05	0.45%				
DWR UCIP Field Study					0.11	0.03		
<i>LMA Totals:</i>	1.66	0.04	1.82	16.45%	0.16	2.31	0.00	0.00

Unit No. 01 Colusa Drain LB	Overall Unit Rating	Total Unit Miles						
MA0012	M	11.06						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.80		0.80	7.23%				
Encroachments					0.05	2.28		
Animal Control	0.02		0.02	0.18%				
Slope Stability	0.01		0.01	0.09%				
Crown Surface / Depressions / Rutting	0.78	0.04	0.94	8.50%				
<i>Supplemental</i>								
2015 USACE Erosion Survey, DRAFT	0.05		0.05	0.45%				
DWR UCIP Field Study					0.11	0.03		
<i>Unit Totals:</i>	1.66	0.04	1.82	16.45%	0.16	2.31	0.00	0.00

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Fall 2016 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0012

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)			M	

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2016 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0012

Waterway			Bank	Unit Miles
Unit No. 01 Colusa Drain			Left	11.06
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M	
Date of Inspection	3/18/2016 - 3/18/2016		10/27/2016 - 10/27/2016	
DWR Inspector	Keith Millard		Tariq Chechi	
Accompanied By	Bryan Reniff Sutter Maintenance Yard		Bryan Reniff Sutter Maintenance Yard	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start		Rating **	A	Issue No.	12
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_MA0012_01_s_2013_12				
Comment Code					
Inspector Comment					
The LMA has adequate flood fight supplies and equipment.					

No Photos

LM Start		Rating **	A	Issue No.	13
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_MA0012_01_s_2013_13				
Comment Code					
Inspector Comment					
The LMA has the O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	14
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_MA0012_01_s_2013_14				
Comment Code					
Inspector Comment					
The LMA completed flood fight training in 2016.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	0.24	Rating **	M	Issue No.	38
LM End	0.24	Issue Type +	En	Location *	N/A
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.035889 °	39.035889 °
				-121.996882 °	-121.996882 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50389 DS_ID:17145 EP_NO: 9381 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 10/17/2016 Abandoned (DWR Sutter Yard-AFreitag)5/31/2016 Abandoned- only the LS concrete standpipe was found.5/4/2015 Abandoned crossing.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection.10/11/2012 Need to verify proper abandonment of pipe. FIELD_STRUCT_DESC: *ABANDONED* 14-inch steel irrigation pipe through the levee, 3 feet below the crown. Open on the waterside (WS) end. 3-foot by 6-foot concrete well on the WS berm. Siphon breaker in 24-inch pipe riser located on the landside (LS) shoulder. 36-inch concrete stand pipe on the LS berm. The only item identified is the 36-inch standpipe on the LS toe (Automatic Board Order (ABO) issued as Permit No. 9381, 1974 - Tribble). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 0.22, Drawing No. 50-4-3081)] FS Date: 10/17/2016 1:09:05 PM					

Photo 1 of 1 : UCIP_FA_2016_50389_68970.jpg



36-inch concrete riser on LS toe.

LM Start	0.44	Rating **	M	Issue No.	25
LM End	0.49	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			39.157957 °	39.158226 °
				-122.021950 °	-122.021950 °
DWR ID	DWR_MA0012_01_s_2016_25				
Comment Code					
Inspector Comment					
2011 - Erosion occurring upstream and downstream of an irrigation diversion structure. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: SYC_9-3_L]					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	0.49	Rating **	M	Issue No.	39
LM End	0.49	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.039413 °	39.039413 °
				-121.997766 °	-121.997766 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50391
DS_ID:17146
EP_NO: 9382
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Minor sediment blocking the WS flap gate from opening. LS inlet still mostly full of sediment.(DWR Sutter Yard- AFreitag)9/29/2016 Crossing has been downgraded from Urgent to Non-Urgent WS flap gate is closed for flood season. Need to coordinate with owner to remove sediment blocking WS flap gate. (DWR UCIP - omagana)5/31/2016 WS flap gate is blocked from opening by sediment. LS inlet is over 50% full of sediment. (DWR Sutter Yard - afreitag)5/4/2015 WS flap gate is blocked by sediment and unable to open. LS inlet is about 50% plugged with soil. Needs to be cleaned. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Sediment against flapgate has been cleared and it can now function properly. (DWR Sutter Yard - afreitag)7/16/2013 Sediment is built up against WS flapgate preventing it from opening. (DWR Sutter Yard - afreitag)10/11/2012 Pipe is partially filled with soil. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Flap gate, concrete headwall and grouted cobble spillway on the waterside (WS). Concrete headwall located on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9382, 1974 - Baber). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 0.49, Drawing No. 50-4-3081)]
FS Date: 10/17/2016 1:14:15 PM

Photo 1 of 2 : UCIP_FA_2016_50391_68973.jpg



Intake at LS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

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Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	0.49	Rating **	M	Issue No.	39 (cont)
LM End	0.49	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.039413 °	39.039413 °
				-121.997766 °	-121.997766 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50391
DS_ID:17146
EP_NO: 9382
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Minor sediment blocking the WS flap gate from opening. LS inlet still mostly full of sediment.(DWR Sutter Yard- AFreitag)9/29/2016 Crossing has been downgraded from Urgent to Non-Urgent WS flap gate is closed for flood season. Need to coordinate with owner to remove sediment blocking WS flap gate. (DWR UCIP - omagana)5/31/2016 WS flap gate is blocked from opening by sediment. LS inlet is over 50% full of sediment. (DWR Sutter Yard - afreitag)5/4/2015 WS flap gate is blocked by sediment and unable to open. LS inlet is about 50% plugged with soil. Needs to be cleaned. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Sediment against flapgate has been cleared and it can now function properly. (DWR Sutter Yard - afreitag)7/16/2013 Sediment is built up against WS flapgate preventing it from opening. (DWR Sutter Yard - afreitag)10/11/2012 Pipe is partially filled with soil. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Flap gate, concrete headwall and grouted cobble spillway on the waterside (WS). Concrete headwall located on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9382, 1974 - Baber). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 0.49, Drawing No. 50-4-3081)]
FS Date: 10/17/2016 1:14:15 PM

Photo 2 of 2 : UCIP_FA_2016_50391_68972.jpg



Outlet at WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	0.69	Rating **	M	Issue No.	36
LM End	1.49	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.042290 °	39.052787 °
				-121.998030 °	-122.003160 °
DWR ID	DWR_MA0012_01_f_2016_36				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_36_20161107_00040.jpg



View of the annual grass along the waterside slope.

LM Start	1.51	Rating **	M	Issue No.	40
LM End	1.51	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.053074 °	39.053074 °
				-122.003157 °	-122.003157 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50393 DS_ID:17148 EP_NO: 9382 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 Vegetation is overgrowing the WS head wall near the pump. The rest of the crossing appears to be in good condition. (DWR Sutter Yard- A Freitag) 5/31/2016 Crossing appears to be in good condition. 5/4/2015 Crossing appears in good condition. No noticeable issues to report. 6/17/2014 Same as last inspection. 12/16/2013 Same as last inspection. 7/16/2013 Same as last inspection. FIELD_STRUCT_DESC: 18-inch steel irrigation pipe through the levee, 3 feet below the crown. Pump, butterfly valve, and concrete headwall at the edge of bank. Bank cobble re-vetted 10 feet on both waterside (WS) and landside (LS) of installation. 18-inch polyvinyl chloride (PVC) standpipe on the LS berm. Siphon breaker in 18-inch concrete riser on the LS shoulder. Service pole at the edge of the bank. (Automatic Board Order (ABO) issued as Permit No. 9382, 1974 - Baber) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 1.53)] FS Date: 10/17/2016 1:16:24 PM					

Photo 1 of 2 : UCIP_FA_2016_50393_68981.jpg



Pump, pole, and meter on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	1.51	Rating **	M	Issue No.	40 (cont)
LM End	1.51	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.053074 °	39.053074 °
				-122.003157 °	-122.003157 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50393 DS_ID:17148 EP_NO: 9382 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 Vegetation is overgrowing the WS head wall near the pump. The rest of the crossing appears to be in good condition. (DWR Sutter Yard- A Freitag)5/31/2016 Crossing appears to be in good condition.5/4/2015 Crossing appears in good condition. No noticeable issues to report.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection. FIELD_STRUCT_DESC: 18-inch steel irrigation pipe through the levee, 3 feet below the crown. Pump, butterfly valve, and concrete headwall at the edge of bank. Bank cobble re-vetted 10 feet on both waterside (WS) and landside (LS) of installation. 18-inch polyvinyl chloride (PVC) standpipe on the LS berm. Siphon breaker in 18-inch concrete riser on the LS shoulder. Service pole at the edge of the bank. (Automatic Board Order (ABO) issued as Permit No. 9382, 1974 - Baber) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 1.53)] FS Date: 10/17/2016 1:16:24 PM					

Photo 2 of 2 : UCIP_FA_2016_50393_68980.jpg



Concrete and PVC risers on LS.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	1.69	Rating **	M	Issue No.	41
LM End	1.69	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.055711 °	39.055711 °
				-122.003252 °	-122.003252 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50394
DS_ID:17149
EP_NO: 9382
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Crossing appears to be in good condition. This is a gravity drain for the LS. (DWR Sutter Yard-AFreitag)5/31/2016 LS inlets was partially plugged. WS flapgate was clear of sediment and able to operate properly.5/4/2015 WS flapgate is blocked by sediment and unable to open. LS inlet is plugged by silt and wood chippings. Needs to be cleaned.6/17/2014 Flap gate was cleaned out and is fully closed. LS inlet still partially full of soil.12/16/2013 Same as last inspection. WS flapgate still needs to be cleaned out and shut.7/16/2013 Same as last inspection. Make sure flapgate is closed before highwater season.10/11/2012 Inlet on LS filled partially with soil. Outlet blocked with soil and the flap gate wont close.
FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Flap gate, concrete headwall and grouted cobble spillway on the waterside (WS). Concrete headwall located on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9382, 1974 - Baber). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 1.72)]
FS Date: 10/17/2016 1:17:24 PM

LM Start	1.69	Rating **	M	Issue No.	41 (cont)
LM End	1.69	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP_FA_2016_50394_68984.jpg



Outlet on WS toe.

Photo 2 of 2 : UCIP_FA_2016_50394_68983.jpg



Inlet on LS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	1.81	Rating **	M	Issue No.	35
LM End	1.81	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.057393 °	39.057393 °
				-122.003452 °	-122.003452 °
DWR ID	DWR_MA0012_01_f_2016_35				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_35_20161107_00041.jpg



View of the slope instability caused by vehicles along the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
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Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	1.98	Rating **	M	Issue No.	42
LM End	1.98	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.059773 °	39.059773 °
				-122.004391 °	-122.004391 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50398 DS_ID:17151 EP_NO: 9391 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 Appears abandoned. Both pipe ends are completely buried. (DWR Sutter Yard- AFreitag)9/29/2016 Crossing has been downgraded from Urgent to Non-Urgent both pipe ends are buried. Having both ends buried prevents water from flowing from WS to LS during flood season. Need to contact owner and have owner coordinate with CVFPB to comply with Title 23. (DWR UCIP - omagana)5/31/2016 Both pipe ends are buried. Pipe is non-operational. (DWR Sutter Yard - afreitag)5/4/2015 LS and WS ends are blocked with soil. Pipe is inoperable as it is. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Same as last inspection. (DWR Sutter Yard - afreitag)7/16/2013 LS inlet is completely filled with soil. Needs to be cleaned out. (DWR Sutter Yard - afreitag)10/11/2012 Inlet is partially filled with soil. (DWR Sutter Yard - wwylie) FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Flap gate, concrete headwall and grouted cobble spillway on the waterside (WS). Concrete headwall located on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9391, Christenson). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 2.02)] FS Date: 10/17/2016 1:20:06 PM					

Photo 1 of 2 : UCIP_FA_2016_50398_68994.jpg



WS view of outlet.

LM Start	1.98	Rating **	M	Issue No.	42 (cont)
LM End	1.98	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_FA_2016_50398_68993.jpg



LS view of inlet.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

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Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	2.58	Rating **	U	Issue No.	34
LM End	3.01	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.067342 °	39.072267 °
				-122.009530 °	-122.014443 °
DWR ID	DWR_MA0012_01_f_2016_34				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_34_20161107_00042.jpg



View of a ditch along the landside toe.

LM Start	3.01	Rating **	U	Issue No.	1
LM End	3.68	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.072267 °	39.081684 °
				-122.014453 °	-122.016243 °
DWR ID	DWR_MA0012_01_s_2012_1				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_1_20161107_00043.jpg



View of a ditch along the landside toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	3.69	Rating **	U	Issue No.	43
LM End	3.69	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.081949 °	39.081949 °
				-122.016179 °	-122.016179 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50401
DS_ID:17154
EP_NO: 9388
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Slide gate stem is still and the gate appears to be inoperable. (DWR Sutter Yard- AFreitag)5/31/2016 Slide gate stem is still bent. WS flap gate is chained open. (DWR Sutter Yard - afreitag)5/4/2015 Slide gate stem is still bent. Gate looks to be unable to close all the way. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Slide gate stem is still bent. WS flapgate was closed. (DWR Sutter Yard - afreitag)7/16/2013 Water flowing through pipe so screw gate definately not closed. Was told NOV's have been sent for owner to replace stem. Flap gate gets closed for flood season. (DWR Sutter Yard - afreitag)10/11/2012 Slide gate inoperable, but appears to be in closed position. Flap gate held in open position. Good candidate for video inspection when, if ever, dry. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 48-inch corrugated metal drainage pipe through the levee, 28 feet below the crown. Slide gate in 66-inch pipe riser on the waterside (WS) slope. Concrete headwall on the WS. Grouted cobble spillway from drain ditch to large canal on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9388, 1974 - Wallace) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 3.78)]
FS Date: 10/17/2016 1:23:17 PM

LM Start	3.69	Rating **	U	Issue No.	43 (cont)
LM End	3.69	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_FA_2016_50401_69005.jpg



Slide gate in corrugated metal riser on WS slope.

Photo 2 of 2 : UCIP_FA_2016_50401_69004.jpg



Drainage ditch on LS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	4.23	Rating **	M	Issue No.	44
LM End	4.23	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.089666 °	39.089666 °
				-122.015248 °	-122.015248 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50406
DS_ID:20717
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Crossing appears to be in good condition. (DWR Sutter Yard- A Freitag) 5/31/2016 Crossing appears to be in good condition. 5/4/2015 Crossing appears to be in good condition. No noticeable issues to report. 6/17/2014 Same as last inspection. Pump reinstalled on pier. 12/16/2013 Pump has been removed for winter. 7/16/2013 Same as last inspection. 10/11/2012 No permit identified for this crossing.
FIELD_STRUCT_DESC: 24-inch asphalt coated steel irrigation pipe through levee, 4.5 feet below the crown. Pump in pump house located on the waterside (WS) bank. Siphon breaker valve installed on the landside (LS) shoulder. No permit has been identified since crossing was field discovered in 2012.
FS Date: 10/17/2016 1:27:14 PM

LM Start	4.23	Rating **	M	Issue No.	44 (cont)
LM End	4.23	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_FA_2016_50406_69023.jpg



Possible siphon breaker for pipe on LS shoulder.

Photo 2 of 2 : UCIP_FA_2016_50406_69022.jpg



Pumping plant on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	4.72	Rating **	M	Issue No.	4
LM End	4.77	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.096839 °	39.097455 °
				-122.015568 °	-122.015581 °
DWR ID	DWR_MA0012_01_s_2012_4				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_4_20161107_00044.jpg



View of a ditch along the landside toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	5.01	Rating **	M	Issue No.	45
LM End	5.01	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.100898 °	39.100898 °
				-122.016078 °	-122.016078 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50408 DS_ID:17191 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 WS flap gate is still silted over and LS inlet is heavily vegetated and unable to be inspected. (DWR Sutter Yard- AFreitag)9/29/2016 Crosssing has been downgraded from Urgent to Non-Urgent WS flap gate is closed shut due to sediment build up. For flood season flap gate is required to be closed. Need to coordinate with owner to remove sediment from WS to have WS flap gate be operable after flood season. (DWR UCIP - omagana)5/31/2016 WS pipe end was mostly underwater but it appears to still be silted over. (DWR Sutter Yard - afreitag)5/4/2015 WS flapgate is blocked by sediment and unable to open. LS inlet is hidden by sediment and heavy vegetation and unable to be located. Needs to be cleared. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Same as last inspection. (DWR Sutter Yard - afreitag)7/16/2013 Same as last inspection. (DWR Sutter Yard - afreitag)10/11/2012 Pipe is clogged at both the inlet and outlet. Good candidate for video inspection. (DWR UCIP - wwylie) FIELD_STRUCT_DESC: 48-inch corrugated metal drainage pipe through the levee, approximately 15 feet below the crown. Concrete headwalls on both the waterside (WS) and (LS) ends with an automatic drainage gate on the WS. [Additional Reference(s): USACE Sacramento O&M Manual 132, October 1959 (HLM 5.12)] FS Date: 10/17/2016 1:29:34 PM					

Photo 1 of 2 : UCIP_FA_2016_50408_69030.jpg



Apparent inlet clogged with concrete or grout on LS toe in drainage swale.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	5.01	Rating **	M	Issue No.	45 (cont)	
LM End	5.01	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			39.100898 °	39.100898 °	
				-122.016078 °	-122.016078 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:50408 DS_ID:17191 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 WS flap gate is still silted over and LS inlet is heavily vegetated and unable to be inspected. (DWR Sutter Yard- A Freitag)9/29/2016 Crosssing has been downgraded from Urgent to Non-Urgent WS flap gate is closed shut due to sediment build up. For flood season flap gate is required to be closed. Need to coordinate with owner to remove sediment from WS to have WS flap gate be operable after flood season. (DWR UCIP - omagana)5/31/2016 WS pipe end was mostly underwater but it appears to still be silted over. (DWR Sutter Yard - a Freitag)5/4/2015 WS flapgate is blocked by sediment and unable to open. LS inlet is hidden by sediment and heavy vegetation and unable to be located. Needs to be cleared. (DWR Sutter Yard - a Freitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - a Freitag)12/16/2013 Same as last inspection. (DWR Sutter Yard - a Freitag)7/16/2013 Same as last inspection. (DWR Sutter Yard - a Freitag)10/11/2012 Pipe is clogged at both the inlet and outlet. Good candidate for video inspection. (DWR UCIP - wylie) FIELD_STRUCT_DESC: 48-inch corrugated metal drainage pipe through the levee, approximately 15 feet below the crown. Concrete headwalls on both the waterside (WS) and (LS) ends with an automatic drainage gate on the WS. [Additional Reference(s): USACE Sacramento O&M Manual 132, October 1959 (HLM 5.12)] FS Date: 10/17/2016 1:29:34 PM						

Photo 2 of 2 : UCIP_FA_2016_50408_69029.jpg



Outlet on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	5.16	Rating **	M	Issue No.	33
LM End	5.81	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.103082 °	39.112440 °
				-122.016377 °	-122.017598 °
DWR ID	DWR_MA0012_01_f_2016_33				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_33_20161107_00045.jpg



View of minor ruts on the levee crown

LM Start	5.98	Rating **	M	Issue No.	46
LM End	5.98	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.114949 °	39.114949 °
				-122.017946 °	-122.017946 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50411 DS_ID:20715 EP_NO: 13699 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 Crossing appears to be in good condition. 5/31/2016 Crossing appears to be in good condition.5/4/2015 Corssing appears to be in good condition. No noticeable issues to report.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection.10/11/2012 Oil leakage around pump. FIELD_STRUCT_DESC: 1 of 2: 20-inch soilproofed steel drainage pipe through the levee, 4.4 feet below the crown. Cobble revetted sump located on the waterside (WS). Siphon breaker in 24-inch metal pipe risers on the WS shoulder. Pump house at toe of landside (LS) slope. This crossing replaces the previous 18-inch pipe listed in the USACE Sacramento O&M manual (HLM 6.13), see DS_ID 17162. (Permit No. 13699, 1984 - Davis Ranches) FS Date: 10/17/2016 1:32:51 PM					

Photo 1 of 2 : UCIP_FA_2016_50411_69061.jpg



Pumping plant on LS slope

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	5.98	Rating **	M	Issue No.	46 (cont)	
LM End	5.98	Issue Type +	En	Location *	CR	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			39.114949 °	39.114949 °	
				-122.017946 °	-122.017946 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:50411 DS_ID:20715 EP_NO: 13699 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/17/2016 Crossing appears to be in good condition. 5/31/2016 Crossing appears to be in good condition.5/4/2015 Corssing appears to be in good condition. No noticeable issues to report.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection.10/11/2012 Oil leakage around pump. FIELD_STRUCT_DESC: 1 of 2: 20-inch soilproofed steel drainage pipe through the levee, 4.4 feet below the crown. Cobble revetted sump located on the waterside (WS). Siphon breaker in 24-inch metal pipe risers on the WS shoulder. Pump house at toe of landside (LS) slope. This crossing replaces the previous 18-inch pipe listed in the USACE Sacramento O&M manual (HLM 6.13), see DS_ID 17162. (Permit No. 13699, 1984 - Davis Ranches) FS Date: 10/17/2016 1:32:51 PM						

Photo 2 of 2 : UCIP_FA_2016_50411_69060.jpg



Siphon Breaker on WS shoulder.

LM Start	6.02	Rating **	U	Issue No.	37
LM End	7.20	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.115518 °	39.131618 °
				-122.017908 °	-122.022785 °
DWR ID	DWR_MA0012_01_f_2016_37				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_37_20161107_00046.jpg



View of a ditch along the landside toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	6.05	Rating **	M	Issue No.	32
LM End	6.05	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.115903 °	39.115903 °
				-122.018190 °	-122.018190 °
DWR ID	DWR_MA0012_01_f_2016_32				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_32_20161107_00047.jpg



View of the rodent holes along the landside slope.

LM Start	7.55	Rating **	M	Issue No.	31
LM End	7.64	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.136762 °	39.138048 °
				-122.022800 °	-122.022737 °
DWR ID	DWR_MA0012_01_f_2016_31				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	7.58	Rating **	M	Issue No.	47
LM End	7.58	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.137187 °	39.137187 °
				-122.022793 °	-122.022793 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50417
DS_ID:17163
EP_NO: 9390
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Appears abandoned and should be removed. (DWR Sutter Yard- A Freitag) 5/31/2016 Appears to be abandoned. Pipe is capped on both WS and LS ends. 5/4/2015 Crossing appears to be in good condition. No noticeable issues to report. 6/17/2014 Same as last inspection. 12/16/2013 Same as last inspection. 7/16/2013 Same as last inspection. 10/11/2012 Rodent burrowing along sides of pipe on LS.
FIELD_STRUCT_DESC: 24-inch steel irrigation pipe through the levee, 3 feet below the crown. Both ends capped, terminating on levee slopes. (Automatic Board Order (ABO) issued as Permit No. 9390, 1974 - Profpe) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 7.76)]
FS Date: 10/17/2016 1:35:45 PM

LM Start	7.58	Rating **	M	Issue No.	47 (cont)
LM End	7.58	Issue Type +	En	Location *	CR

Photo 1 of 2 : UCIP_FA_2016_50417_69089.jpg



Pipe on WS.

Photo 2 of 2 : UCIP_FA_2016_50417_69088.jpg



Pipe on LS.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	7.72	Rating **	M	Issue No.	30
LM End	7.72	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.139143 °	39.139143 °
				-122.022618 °	-122.022618 °
DWR ID	DWR_MA0012_01_f _ 2016_30				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

No Photos

LM Start	8.76	Rating **	M	Issue No.	29
LM End	8.76	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.154293 °	39.154293 °
				-122.021740 °	-122.021740 °
DWR ID	DWR_MA0012_01_f_2016_29				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

No Photos

LM Start	8.84	Rating **	A/W	Issue No.	28
LM End	8.84	Issue Type +	Ob	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.155365 °	39.155365 °
				-122.021675 °	-122.021675 °
DWR ID	DWR_MA0012_01_f_2016_28				
Comment Code					
S1 : Repair slope instability.					
Inspector Comment					
Longitudinal cracks caused by fat clay. Cracks are 18" to 24" deep at places.					

Photo 1 of 1 : FA_2016_MA0012_299_28_20161107_00049.jpg



View of the longitudinal cracks along the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	9.03	Rating **	U	Issue No.	48
LM End	9.03	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.158097 °	39.158097 °
				-122.021706 °	-122.021706 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50419
DS_ID:17166
EP_NO: 9390
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 WS concrete headwall is still tiltig away from the levee. (DWR Sutter Yard- AFreitag)5/31/216 Ws concrete headwall is still tilting away from the levee and towards the WS ditch. (DWR Sutter Yard - afreitag)5/4/2015 WS concrete headwall tilting away from the levee slope. (DWR Sutter Yard - afreitag)6/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/16/2013 Same as last inspection. (DWR Sutter Yard - afreitag)7/16/2013 Same as last inspection. (DWR Sutter Yard - afreitag)10/11/2012 Concrete Headwall tilting on WS slope. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 36-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. Concrete head wall, slide gate and grouted revetment on the waterside (WS). Slide gate and concrete headwall located on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9390, 1974 - Profpe). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 9.24)]
FS Date: 10/17/2016 1:48:56 PM

LM Start	9.03	Rating **	U	Issue No.	48 (cont)
LM End	9.03	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_FA_2016_50419_69100.jpg



Tilting headwall on WS toe.

Photo 2 of 2 : UCIP_FA_2016_50419_69099.jpg



Slidegate on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	9.03	Rating **	M	Issue No.	49
LM End	9.03	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.158124 °	39.158124 °
				-122.021701 °	-122.021701 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50420
DS_ID:17165
EP_NO: 9390
Repair Type: Non-Urgent
Crossing Status: Indicator Found
UCIP Comments: 10/17/2016 Abandoned. (DWR Sutter Yard-AFreitag)5/31/2016 Abandoned crossing.5/4/2015 Abandoned crossing.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection.10/11/2012 Pipe abandoned. Steel pump platform remains on LS slope, but all appurtenances have been removed.
FIELD_STRUCT_DESC: *ABANDONED* 18-inch steel pipe through the levee, 3 feet below the crown. Waterside (WS) end open into concrete spill box. Pump located on the landside (LS) on steel pier. (Automatic Board Order (ABO) issued as Permit No. 9390, 1974 - Profpe)
[Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 9.24)]
FS Date: 10/17/2016 1:55:46 PM

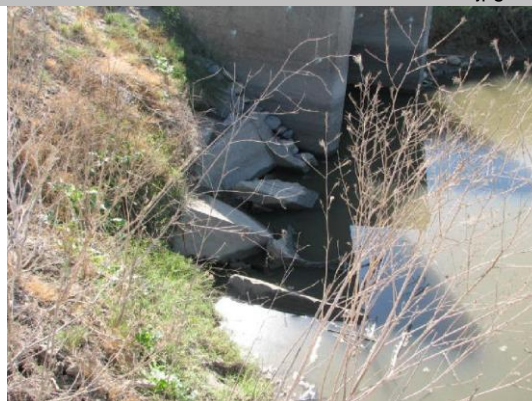
LM Start	9.03	Rating **	M	Issue No.	49 (cont)
LM End	9.03	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_FA_2016_50420_69109.jpg



Pump platform at center left of photo.

Photo 2 of 2 : UCIP_FA_2016_50420_69108.jpg



headwall debris on LS toe showing evidence of 18-inch cmp.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	9.12	Rating **	U	Issue No.	50
LM End	9.12	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.159477 °	39.159477 °
				-122.021839 °	-122.021839 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50422 DS_ID:17167 EP_NO: 9389 Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/17/2016 WS flapgate has seperated from the pipe end. WS pipe end is showing signs of rust and deterioration. Needs a new flapgate or other means of closing off the pipe before flood season. (DWR Sutter Yard- A/Freitag)5/31/2016 Crossing appears to be in good condition.5/4/2015 Corssing appears to be in good condition. No noticeable issues to report.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection. FIELD_STRUCT_DESC: 36-inch corrugated metal drainage pipe through the levee, 15.4 feet below the crown. Concrete headwall and flap gate located on the waterside (WS). Concrete headwall located on the landside (LS). Pump on steel structure in slough on the LS discharges into 42-inch corrugated metal pipe riser. Service pole on ramp. Butterfly gate at inlet on the LS toe. (Automatic Board Order (ABO) issued as Permit No. 9389, 1974 - Propfe) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 9.33)] FS Date: 10/17/2016 1:56:47 PM					

Photo 1 of 2 : UCIP_FA_2016_50422_69112.jpg



Pumping plant on LS toe.

LM Start	9.12	Rating **	U	Issue No.	50 (cont)
LM End	9.12	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_FA_2016_50422_69111.jpg



Flap gate and headwall on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	9.14	Rating **	M	Issue No.	27
LM End	9.14	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.159795 °	39.159795 °
				-122.021898 °	-122.021898 °
DWR ID	DWR_MA0012_01_f _ 2016_27				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

No Photos

LM Start	9.29	Rating **	C	Issue No.	26
LM End	9.29	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.161847 °	39.161847 °
				-122.021895 °	-122.021895 °
DWR ID	DWR_MA0012_01_f_2015_26				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Repair the rodent holes on the landside slope.					

No Photos

LM Start	10.45	Rating **	M	Issue No.	24
LM End	10.45	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.173798 °	39.173798 °
				-122.015097 °	-122.015097 °
DWR ID	DWR_MA0012_01_f_2016_24				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0012_299_24_20161107_00048.jpg



View of the rodent holes along the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	10.48	Rating **	M	Issue No.	22
LM End	10.48	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.173812 °	39.173812 °
				-122.014560 °	-122.014560 °
DWR ID	DWR_MA0012_01_f_2016_22				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					

No Photos

LM Start	10.69	Rating **	U	Issue No.	23
LM End	10.73	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.176778 °	39.177313 °
				-122.014340 °	-122.014380 °
DWR ID	DWR_MA0012_01_s_2016_23				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					
Ruts are 6" deep at places.					

Photo 1 of 1 : FA_2016_MA0012_299_23_20161107_00050.jpg



View of the ruts on the levee crown.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0012

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Colusa Drain	Left	11.06	10/27/2016 10/27/2016	Tariq Chechi

LM Start	10.92	Rating **	M	Issue No.	51
LM End	10.92	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.180039 °	39.180039 °
				-122.014266 °	-122.014266 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:50423
DS_ID:17157
EP_NO: 9386
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/17/2016 Abandoned crossing. (DWR Sutter Yard- AFreitag)5/31/2016 Abandoned crossing. Both pipe ends and slide gate inside of riser are buried.5/4/2015 Both pipe ends and slide gate in riser are plugged with soil. Crossing is inoperable.6/17/2014 Same as last inspection.12/16/2013 Same as last inspection.7/16/2013 Same as last inspection.10/11/2012 Pipe plugged with soil on both ends as well as at slide gate on WS slope. Slide gate inoperable.
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 8 feet below the crown. Slide gate in 36-inch pipe riser on the waterside (WS) shoulder. Levee turns eastward. (Automatic Board Order (ABO) issued as Permit No. 9386, 1974 - Wescott) [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 132, October 1959 (HLM 11.17)]
FS Date: 10/17/2016 2:05:11 PM

LM Start	10.92	Rating **	M	Issue No.	51 (cont)
LM End	10.92	Issue Type +	En	Location *	CR

Photo 1 of 2 : UCIP_FA_2016_50423_69115.jpg



cover on 36-inch CMP standpipe on WS slope.

Photo 2 of 2 : UCIP_FA_2016_50423_69114.jpg



Bent and broken actuator on slide gate in 36-inch CMP. Pipe appears to be filled with soil.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	